CHEM 1211L - Chemistry Lab I (version 201203)

Posted: 02/09/2010

☑ Standard ☐ Institutionally Developed College: N/A

EDGE Compatible: No

Pre-requisites

MATH 1101 - Mathematical Modeling (201003)
MATH 1111 - College Algebra (201003)

Co-requisites

CHEM 1211 - Chemistry I (201003)

Course Description

Selected laboratory exercises paralleling the topics in CHEM 1211. The laboratory exercises for this course include measurement, physical and chemical properties of matter, atomic structure, chemical bonding, nomenclature, chemical reactions, stoichiometry and gas laws.

Course Length

	Minutes	Contact Unit
Lecture:	0	
Lab 2:	0	
Lab 3:	2250	
Practicum/Internship:	0	
Clinical:	0	
Total:	2250	1
Semester Credit Hours:		1

Competencies

Order	Description	Lecture	Lab2	Lab3	Practicum/ Internship	Clinical	Total Minutes	Semester Credit Hrs
1	Laboratory Safety	0	0	60	0	0	60	0
2	Units of Measurement	0	0	308	0	0	308	0
3	Physical and Chemical Properties of Matter	0	0	420	0	0	420	0
4	Atomic Structure	0	0	225	0	0	225	0
5	Chemical Bonding	0	0	225	0	0	225	0
6	Nomenclature	0	0	225	0	0	225	0
7	Chemical Reactions	0	0	337	0	0	337	0

Order	Description	Lecture	Lab2	Lab3	Practicum/ Internship	Clinical	Total Minutes	Semester Credit Hrs
8	Stoichiometry	0	0	225	0	0	225	0
9	Gas Laws	0	0	225	0	0	225	0
	Totals for Course CHEM 1211L - Chemistry Lab I (version 201203):	**0**	**0**	**2250**	**0**	**0**	**2250**	**1**

Learning Outcomes

Laboratory Safety

Order	Description	Learning Domain	Level of Learning
1	Discuss and apply laboratory exercises encompassing the appropriate practice of laboratory precautions and laboratory safety.	Cognitive	Comprehension

Units of Measurement

Order	Description	Learning Domain	Level of Learning
1	Perform and apply laboratory exercises encompassing units of measurements.	Cognitive	Synthesis

Physical and Chemical Properties of Matter

Order	Description	Learning	Level of
1	Perform and apply laboratory exercises encompassing physical and chemical properties of matter.	Cognitive	Synthesis

Atomic Structure

Order	Description	Learning Domain	Level of Learning
1	Perform and apply laboratory exercises encompassing atomic structure.	Cognitive	Synthesis

Chemical Bonding

Order	Description	Learning Domain	Level of Learning
1	Perform and apply laboratory exercises encompassing chemical bonding.	Cognitive	Synthesis

Nomenclature

Order	Description	Learning Domain	Level of Learning
1	Perform and apply laboratory exercises encompassing nomenclature.	Cognitive	Synthesis

Chemical Reactions

Order	Description	Learning Domain	Level of Learning
1	Perform and apply laboratory exercises encompassing chemical reactions.	Cognitive	Synthesis

Stoichiometry

Order	Description	Learning Domain	Level of Learning

Order	Description	Learning Domain	Level of Learning
1	Perform and apply laboratory exercises encompassing stoichiometry.	Cognitive	Synthesis

Gas Laws

Order	Description	Learning Domain	Level of Learning
1	Perform and apply laboratory exercises encompassing gas laws.	Cognitive	Synthesis

References

Order	Reference Type	Description
1	Book with Author(s) Listed	Beran, J.. (2009). Laboratory manual for principles of general chemistry. (8th). New York, NY: John Wiley & Sons.